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EDITORIAL NOTE.

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LABOUR IN THE WAR INDUSTRIES OF BRITAIN AND U.S.A.

From time to time attempts have been made to assess the magnitude and sources of the economic war efforts of various belligerent countries. These estimates have always been made in money values and have suffered therefore from the difficulty of obtaining adequate price indices for the various sectors of the economy and of ' true ' rates of exchange between currencies. The following two articles by Mr. Kalecki and Mr. Steindl attempt to establish for Britain and U.S.A. a sounder, though in some respects more limited, measure of the economic effort devoted to war, by drawing up a balance sheet of manpower engaged in the war sector in Britain and U.S.A. and the sources from which this manpower has been drawn. The results of this comparison are interesting and of practical importance: for instance in the second quarter of 1942 *there were about* 5 *U.S. war workers to every* 4 *in Britain. Although this ratio has undoubtedly increased, it is unlikely that it is, at the beginning of* 1943, *as much as* 2 *to* 1. *A substantial proportion of the American input of labour is devoted to the construction of fixed capital equipment, e.g. factories, and to building up working capital corresponding to a greater ultimate flow of war weapons. This building up of fixed and working capital applies, moreover, not only to war industry but also to the purely military sector; armies cannot operate without stores. In Britain, on the other hand, the building up process has been completed. It follows that any addition to British war production which can be achieved by economic reorganisation is still of prime importance, and the argument that ' An extra* 10 *per cent. from Britain is negligible in view of the vast U.S. production ' is not valid, and will not be valid during* 1943.

THE EDITOR.

A. SOURCES OF MANPOWER IN THE BRITISH WAR SECTOR.

The 'Real Sources of War Finance'

The analysis of the sources of war finance consists mainly in showing how public expenditure on goods and services is covered by the excess of national income over personal consumption, disinvestment at home and abroad, and indirect taxation (see, for instance, the White Paper Cmd. 6347, Table I). By comparing these items in a given war year with their pre-war level it is possible to say how much changes in the national income, personal consumption, investment at home and abroad, and indirect taxation contributed to the increase in public expenditure on goods and services. All these changes, however, are expressed in money terms; as prices usually increase considerably in war time, there arises the problem of 'the real sources of war finance.' This may, I think, be best stated as follows. Let us assume that we are able to construct appropriate price indices for deflating personal consumption, home investment, and exports and imports (visible and invisible). We can then find the value of these items in a given war year at pre-war prices. Adding these 'real values' of personal consumption, public expenditure on goods and services, home investment, and exports and subtracting the 'real value' of imports, we obtain what may be called 'real' national output. It is then possible, by comparison with pre-war data, to establish to what extent the increase in 'real' public expenditure is covered by the increase in 'real' national output, the fall in 'real' personal consumption, the fall in 'real' home investment and the rise in the excess of 'real' imports over 'real' exports.

This procedure is, however, by no means easy in practice since the calculation of 'appropriate price indices' usually presents formidable difficulties, in particular with regard to Government expenditure. Apart from this, however, there arises the more fundamental question of the actual significance of the analysis of the 'real sources of war finance.' It is often implied that such an analysis gives a picture of the mobilisation of resources for war purposes either by increasing their utilisation or by shifting them from peace to war uses. But a simple example will show that this is not the case.

Imagine that labour and raw materials are shifted from private investment to armaments. If the percentage profit margin is lower in Government contracts the value of goods produced by the same factors will fall. As a result private investment will be reduced by a greater amount than that by which Government expenditure will rise, and the 'national output' will decline although the utilisation of resources is not diminished.

A similar 'loss in value' occurs when raw materials and labour are shifted from consumption to armaments. For the value of consumption goods is inflated by the retailer's margin and therefore the value of armaments increases by a smaller amount than that by which consumption is cut down, and as a result the national output falls. It may be argued in this case that the fall reflects a smaller utilisation of the retailer's resources (premises, management etc.), but the picture given by the analysis may be misleading because it may wrongly suggest a diminished utilisation of the factors in which we are primarily interested, as for instance manpower.

It seems that a more satisfactory approach to the analysis of the real sources of the war effort may be achieved by considering this problem for various factors of production. We can try to estimate, for instance, how the increase in total employment and the reduction in consumption, investment, and exports contributed to the rise in the volume of man-power applied to war production. And analogous ' balance sheets ' could be set up—if adequate data were available—for shipping space or foreign exchange.

THE SOURCES OF INCREASE IN LABOUR IN THE GOVERNMENT SECTOR

The purpose of this article is to estimate roughly the sources of the increase in insured labour embodied in the Government purchases between 1938 and 1941. Before we proceed, however, to the actual estimates a few definitions must be given.

We may distinguish in the output of an economy four sectors according to the ultimate use of the product : private investment in fixed capital (for the sake of replacement or expansion), personal consumption, exports, and Government purchases. It is possible to calculate how much direct and indirect home labour (measured in worker-hours) is contained in these four categories of products. For instance, for a building one might calculate the direct labour of building workers, the labour used in producing building materials, the labour of miners producing coal for the manufacture of building materials etc. (The foreign labour embodied in imported timber must not be, of course, included.) However, the total volume of labour of all four sectors thus evaluated will not agree in general with the actual volume of labour because of changes in inventories, i.e. working capital and stocks. If these increase (decrease) the actual volume of labour exceeds (falls short of) that embodied in investment in fixed capital, consumption, exports, and Government purchases by an amount which is equal to labour contained in the increase (decrease) in inventories. We shall add (subtract) this difference resulting from changes in inventories to the labour contained in the investment in fixed capital. In this way the *actual* volume of labour will be divided in four parts corresponding to the following categories : (1) gross private investment, including changes in inventories ; (2) personal consumption ; (3) exports ; (4) Government purchases.

With regard to Government purchases of goods and services the following points should be made clear. (*a*) The Government expenditure includes purchases ' of fixed capital assets (such as sites, buildings and stocks of goods) previously owned privately '[1] which are nothing more than financial transactions ; we do not include them in our Government purchases. (*b*) Government means Central and Local Government ; but it is convenient for our purpose to include all investment of Local Government (except that connected with Civil Defence) and of the Post Office in private investment. (*c*) As we are dealing here only with *insured* labour the services ' produced ' by soldiers do not come into the picture. (*d*) Food and uniforms purchased by the Government for the soldiers are included not in personal consumption but in Government purchases.

By considering only labour insured under the General Scheme aged 16—64 we leave out of account changes in the number of agricultural workers and domestic servants. Thus, for instance, domestic servants[1] going into munition factories will be reflected in our calculation as an increase in the volume of insured labour.

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[1] Cf. Cmd. 6347 p. 3.

More complicated is the situation with regard to certain categories of railwaymen and employees of the Central and Local Government excepted from unemployment insurance. These exceptions did not apply to *new entrants* since the beginning of the war into these occupations. Such new entries *will* thus be reflected in the increase of insured labour in the Government sector.[1]

It remains to be added that in the period 1938—41 there were two changes in the scope of unemployment insurance : in the Spring of 1938 domestic workers in businesses not carried on for gain and chauffeurs were included, and in the Autumn of 1940 salary earners between £250 and £420 p.a. To eliminate the resulting increases in the volume of insured labour the scope of insurance has been assumed throughout the same as in 1941.

CHANGES IN THE VOLUME OF EMPLOYMENT.

Our task is now to estimate to what extent the war-time increase in insured labour embodied in the Government purchases of goods and services as defined above is covered (*a*) by a net increase in the volume of insured employment, both in numbers and in working time, (*b*) by reduction of private investment, civil consumption, and exports respectively.

The increase in the volume of insured labour may be obtained from the estimates published in this BULLETIN.[2] The rise in the number of insured in full or part-time employment (i.e. number of insured *minus* number of *wholly* unemployed) between 1938 and 1941 has been estimated there at 4 to 5 per cent. (on the basis of contributions to the Unemployment Fund after elimination of the influence of the changes in the scope of insurance). The absolute number of insured in full and part-time employment in 1938 at the scope of insurance in the middle of that year was 12.7 million. If we add to this salary earners between £250 and £420 p.a., the number of which has been estimated at about 0.4 million,[3] we obtain for the 1941 scope of insurance 13.1 million as the number of insured in employment in 1938. Thus the percentage increase of 4 to 5 per cent. in the number of insured in employment amounts in round figures to 0.5 million workers. This is, of course, the balance between newly employed people and the substantial withdrawals to the forces.

The rise in average working time can be estimated roughly on the basis of the index of ' earning strength ' given in the article referred to. By this is meant the ratio of the index of earnings per worker to the index of wage rates. Earning strength has been estimated to have risen from 1938 to 1941 by 14 to 15 per cent. This reflects the rise in working time, the overtime, night shift and production bonuses, and the changes in the structure of employment according to age, sex and occupation. The chief factor is overtime in the way of lengthening of working time and overtime bonus. If these were the *only* factors and the overtime bonus is assumed to be 50 per cent. over the normal rate, the rise in working time would amount to 9—10 per cent. It seems that the influence of the shift to better paid occupation was approximately offset by the increased proportion of women and juveniles. To take account of night shift and production bonuses we take the percentage increase in average working time to be 8 per cent. This, applied to 13.1 + 0.5 million, amounts to about 1 million ' 1938 workers ' i.e. persons working the average time of 1938.

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[1] If the new entrants *replace* people exempted from insurance the increase in insured employment is higher than the increase in actual employment. The resulting error is unlikely to be significant.

[2] M. Kalecki, ' The Financial Situation in the First Half of 1942,' BULLETIN Vol. 4 No. 13.

[3] Report of the Unemployment Insurance Statutory Committee on the *Remuneration Limit for Insurance of Non-manual Workers* 1936. I am indebted for this source to Mr. Barna.

Thus the total increase in the volume of insured employment from 1938 to 1941 may be estimated at 1.5 million of ' 1938 workers ' out of which 0.5 million is due to the increase in numbers and 1 million to the higher working time.

THE RELEASE OF LABOUR FROM THE NON-ARMAMENT SECTOR.

We shall now estimate the release of insured labour by the reduction of civilian consumption, private investment and exports between 1938 and 1941. As we shall see below, it was chiefly labour in mining, manufacturing and building industries which was released by these reductions, and our first step will be to find out how much of this type of labour (measured throughout in '1938 workers') corresponds to the reduction of the three items in question. Thus, out of civilian consumption of goods and services we shall first take into account only that of goods, i.e. retail sales. Further, the insured employment in the manufacturing of food, drink and tobacco in 1938 was only 0.5 million, out of which about 60 per cent. was in manufacturing of flour, bread, beer and tobacco, the consumption of which has not fallen. It is thus obvious that the food, drink and tobacco industries are not important in our considerations and we may confine our argument to the fall of retail sales other than food, drink and tobacco.

Our procedure will now be as follows: we shall estimate the wholesale value of the retail sales other than food, drink, and tobacco, of investment, and of exports in 1938 and 1941; we shall estimate the 1938 insured employment in mining, manufacturing, and building corresponding to these items; we shall roughly deflate their 1941 values so as to reduce them to 1938 prices; and on the basis of the results of this calculation we shall be able to get a rough estimate of the labour in mining, manufacturing, and building released by their curtailment.

1. Retail sales other than those of food, drink and tobacco have been estimated at £1,000 million both in 1938 and 1941[1]. These figures do not include, however, motor cars and household coal. The necessary correction has been estimated to be of the order of £150 million in 1938 and £100 million in 1941. Thus for the retail sales in question £1,150 million and £1,100 million have been adopted for 1938 and 1941 respectively.

The retailers' gross margin, evaluated for a sample of department stores for the last pre-war years by Grant and Fowler, was about 30 per cent. of the retail sales.[1] As Department Stores deal chiefly in goods in which we are here interested we may use this margin to obtain the wholesale value of the sales. For 1938 we thus obtain about £800 million. For 1941 the purchase tax must be taken into account. It may be estimated for that year at £90 million. Assuming that this amount has not been 'marked up' we subtract it from £1,100 million which makes £1,010 million and deduct from this 30 per cent. which gives about £710 million.

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[1] J. L. Nicholson and G. D. N. Worswick ' Consumption and Rationing ' BULLETIN Vol. 4, No. 6.

The net private investment in 1938 has been estimated in the White Paper (Cmd. 6347) at £406 million. The changes in the value of stocks resulting from the valuation of stocks at lower prices at the end than at the beginning of the year has been eliminated, but according to the estimate of Mr. Barna[2] this correction is too high by £40 million and thus we shall take into consideration £366 million. The sinking funds and depreciation are assumed in the White Paper to be £475 million p.a. and thus gross private investment may be taken as about £840 million. This figure includes the investment of the Post Office and of the housing and trading services of the Local Authorities. As we include in private investment such investment of Local Authorities as roads, hospitals etc. a correction is here necessary also. The Local Government investment of this type has been estimated on the basis of data given in *Public Investment and the Trade Cycle* by Bretherton, Burchardt and Rutherford at £110 million. Thus for our purpose private investment in 1938 may be taken as £950 million.

The net investment in 1941 is estimated in the White Paper at −£493 million, which with £475 million of sinking funds and depreciation, amounts to − £18 million of gross investment. This figure is subject tot he following corrections. First, no allowance has been made for the fact that stocks at the end of the year have been valued at higher prices than at the beginning. Mr. Barna has estimated the increase of the value of stocks owing to this at £150 million,[3] and this amount must be subtracted from the above value of investment to eliminate the change in the basis of valuation of stocks. Secondly, disinvestment in the sense of the White Paper includes also sales of previously owned fixed assets to the Government. As we consider Government purchases exclusive of these financial transactions (see above p. 3) they must be eliminated from our figure of investment. This involves a positive correction of the White Paper figure, the amount of which is not known but which probably does not exceed £100 million. Finally we must add to the White Paper figure gross investment of Local Government in roads, hospitals etc. which the White Paper does not classify as private investment. This amount was estimated at £110 million for 1938 and was most probably very substantially less in 1941.[4] The result will probably not be much different from nought. We thus assume the gross investment in 1941=0.

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[1] Manchester Statistical Society 'The Analysis of Costs of Retail Distribution,' December 1938.

[2] Quoted in N. Kaldor: 'The 1941 White Paper on National Income and Expenditure,' *Economic Journal*, June—September 1942.

[3] Ibidem.

[4] The investment of the Local Government in connection with civil defence we include not in private investment but in Government purchases.

Finally exports of U.K. Produce and Manufactures were (except small amounts of food, drink and tobacco which are without significance in terms of employment) in 1938 about £430 million. At the end of 1940 this item fell to an annual rate of about £250 million. For 1941 the figures of foreign trade have not been published, but exports have most probably fallen further still. We shall assume for that year an arbitrary figure of £200 million. But if the actual level were substantially lower this would not significantly affect our final results (see p. 10).

We may now put together the results arrived at.

TABLE I.

Changes in Civilian Outlay, 1938-41

	1938	*1941*
	£ million	
Retail sales other than of food, drink and tobacco, at wholesale prices	800	710
Gross private investment (inclusive of Local Government)	950	0
Exports of U.K. Produce and Manufactures except food, drink and tobacco)	430	200
	2,180	910

2. We shall estimate the employment in mining, manufacturing and building corresponding to the three items under consideration in 1938. The total number of insured workers fully or partly employed in mining, manufacturing (except that of food, drink and tobacco), and building in 1938 was 7.5 million. This figure is exclusive of salary earners between £250 and £420 p.a. A correction proportionate to that introduced for the total number of insured on p. 4, raises insured employment in mining, manufacturing and building in 1938 to 7.7 million workers. This figure corresponds to the three items in question plus Central Government investment. This was almost fully for defence purposes and amounted to about £190 million.[1] The three items considered above *plus* this amount make £2,370 million, out of which Central Government investment accounts for about 8 per cent. By deducting this percentage from the total employment in mining, manufacturing and building, which gives 7.1 million, we obtain the approximate labour equivalent of our three items.

3. We shall now estimate roughly the indices for deflating the 1941 values given in Table I.

The most important single item in retail sales (other than of food, drink and tobacco) is clothing and footwear (over 40 per cent. of these sales in 1938). According to the Ministry of Labour the index of retail prices of clothing and footwear in 1941 was 176 if 1938 is taken as 100. According to an inquiry published in this BULLETIN,[2] this figure seems too high and should be reduced by some 5 per cent., which gives 167. The rise in prices of many other non-food goods seems to have been of similar order. The average price index for goods other than food, drink and tobacco was, however, probably a little lower (in particular owing to a smaller increase in the prices of household coal). We shall adopt an index figure of 160. This figure is inclusive of the rise due to purchase tax; as this makes in 1941 8 per cent. of the total retail sales considered (see p. 6) we deduct this percentage from 160 and obtain 147.

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[1] According to Bretherton, Burchardt and Rutherford, op. cit. In this investment there are involved some workers excepted from unemployment insurance (in dockyards and ordnance factories) but their number is negligible.

[2] G. H. Daniel, 'The Cost of Living in Bristol,' BULLETIN Vol. 3, No. 14.

For the movement of prices of investment goods we have the following symptoms. The prices of iron and steel in the index of the Board of Trade increased from 1938 to 1941 by 30 per cent., those of non-ferrous metals by 31 per cent., and those of building materials by 34 per cent. We adopt an index figure of 132. Finally as the index for export prices we take the Board of Trade index of prices of manufactured industrial products which was in 1941 32 per cent. higher than in 1938. The combined price index for the three items in question may be obtained by weighting the indices adopted above proportionately to the values of the respective items in 1938 as given in Table I. This gives 137.

It need hardly be mentioned that the basis of the indices adopted is very precarious indeed, and therefore it is important to have a check upon the estimate. This may be obtained in the following way. We calculate an index of unit prime costs corresponding to the price index obtained above. The former should not differ much from the latter. The prime costs consist mainly of wages and the cost of imported raw materials and semi-manufactures. The relevant wage bill in 1938 may be calculated as follows. As shown above, the number of workers which corresponded in 1938 to the three items of Table I was 7.1 million It may be assumed[1] that about 10 per cent. out of this are salary earners and thus the number of wage-earners was about 6.4 million. Their average weekly earnings may be estimated[2] at 53s. Finally, following Professor Bowley[3] we assume 48 weeks worked per annum. The wage-bill in question is thus about £800 million. Retained imports of raw materials in 1938 were £218 million, but in addition roughly half of the import of manufactures, which were £215 million, are really semi-manufactures. Thus the proportion of wage bill to the imports of raw materials and semi-manufactures may be taken as 5 to 2. The increase in wage-rates in mining, manufacturing and building from 1938 to 1941 was about 20 per cent. The rise in the Board of Trade index of prices of industrial raw materials (except fuel) and semi-manufactures was about 70 per cent. This index coincides more or less with that of unit costs of foreign raw materials and semi-manufactures. Thus to obtain the index of unit prime costs we shall weight the 120 and 170 in proportion 5 to 2, which gives 134. This corresponds to the product price index estimated above at 137. The result may be considered satisfactory and we adopt the index figures mentioned at the beginning of this paragraph for the deflating the 1941 values in Table I (147, 132, and 132 respectively).

4. The results of this deflation are given in Table II. It follows from it that the 'real value' of retail sales, other than of food, drink and tobacco, at wholesale prices, gross private investment and exports has fallen from £2,180 million in 1938 to £630 million in 1941, i.e. by 71 per cent. It is plausible to assume that the home labour employed in mining, manufacturing and building which was embodied in the three items considered fell by approximately the same percentage. For imports of finished goods constitute only a small proportion of the total and the relation of imports of raw materials to labour could not have changed significantly. We estimated above that the mining, manufac-

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[1] On the basis of the Census of Production.

[2] From the special inquiry of the Ministry of Labour into earnings and from the data of the Ministry of Labour on earnings of coal miners.

[3] *Studies in National Income*, p. 74.

turing and building labour corresponding to the three items considered was 7.1 million '1938 workers.' Thus a 71 per cent. fall means a' release' of 5 million ' 1938 workers.'

In order to have a rough idea about the distribution of the ' labour release ' between civilian consumption of goods other than food, drink and tobacco, gross private investment and exports, we subtract the respective ' real ' values in 1941 from the corresponding 1938 figures and divide the labour release (5 million workers) proportionately to these reductions.

TABLE II. *Labour Release 1938-41.*

	1938	*1941 at 1938 prices* £ million	*Reduction*	'*Labour release*' million workers
Retail sales other than of food, drink & tobacco at wholesale prices	800	480	320	1.1
Gross private investment	950	0	950	3.0
Exports of U.K. produce and manufactures (except food, drink & tobacco)	430	150	280	0.9
	2,180	630	1,550	5.0

So far we have considered only the ' release ' of insured labour employed in mining, manufacturing and building. The total number of workers employed in these trades in 1938 (except manufacturing of food, drink and tobacco) was estimated above at 7.7 million (out of which 0.6 corresponds to Central Government investment and 7.1 to the three major items considered above). The total number insured in full or part-time employment was given above as 13.1 million. The difference, i.e. 5.4 million , represents workers employed in the manufacturing of food, drink and tobacco (0.5 million) and in services (inclusive of those in transport, wholesale and retail distribution, and Central and Local Government officials in so far as they are insured). A scrutiny of all occupations in question leads to the conclusion that the release of this labour as a result of the reduction in civilian consumption, private investment, and exports is unlikely to be beyond the limits of 0.3 and 0.7 million and the major part of it will be due to the reduction of civilian consumption. We shall estimate consequently the total ' release ' of insured labour (cf. Table II) by the reduction of civilian consumption, private investment, and exports at 5.5 million workers. The distribution of this ' release ' among the three items considered may be in round figures estimated at : civilian consumption 1.5 million, private investment 3 million, exports 1 million.

SUMMARY OF RESULTS

We may now present the results of our inquiry as follows :

TABLE III. *Insured Labour Embodied in Government Purchases. The Sources of Increase from 1938 to 1941*

	million workers
Increase in the number of insured in employment	0.5
Increase in the average working time	1.0
Total	*1.5*
Reduction in civilian consumption	1.5
Reduction in private investment (inclusive of Local Government)	3
Reduction in exports	1
Total	*5.5*
Increase in Government purchases	**7**

The following points must here be made clear : (*a*) by workers we mean '1938 workers' (i.e. working the average 1938 hours). Thus the number of *persons* absorbed by Government purchases is smaller ; (*b*) even after such a correction this number would exceed that of engaged on Government contracts for two reasons. First, in goods produced on Government contracts there is also embodied the indirect labour used in production of the respective raw materials and semi-manufactures which may not be on Government contracts. Secondly, Government purchases include those of services and, in so far as these involve insured labour they are reflected in our figure (for instance civil defence, but not the increase in the armed forces, which are not insured); (*c*) the reduction in civilian consumption etc. does not involve necessarily direct transfer of the corresponding labour to the Government sector ; it is frequently connected with the withdrawal to the forces while the influx into insured employment is *pro tanto* larger than the *net* increase in insured employment.

The figure of the increase of insured labour in the Government sector indicates, of course, only the order of magnitude because some of our estimates were rough guesses. On the other hand it may be shown that even relatively high deviations in doubtful items do not influence the results very much. For instance the three most doubtful items were : private investment in 1941, exports in 1941, and the price index for deflating the 1941 values. If investment in 1941, which we estimated at 0, is taken as ± £100 million ; if exports estimated at £200 million are taken as £150 to 250 million ; and if the price indices for deflation of the 1941 values are subject to an error of ± 5 per cent. we still obtain for the increase of insured labour in the Government sector relatively narrow limits of 6.5 to 7.5 million workers. This results from the fact that the fall in non-food civilian consumption, investment, and exports was so great that even considerable errors in the value of 1941 level do not affect the calculation much.

Local Government investment[1] has been included in our inquiry in private investment. Central Government investment, except that of Defence Services, was negligible before the war. If we assume in addition that there were no important changes in the personnel devoted to 'normal' Central or Local Administration the increase in labour in the Government sector calculated above coincides roughly with the increase of labour in the war sector (provided that we include in it such activities as building of merchant ships on Government account). As we estimated the insured labour employed directly and indirectly in armaments in 1938 at 0.6 million, the total volume of insured labour employed in the war sector in 1941 may be estimated at about 7.5 million ' 1938 workers '. (This figure would be not significantly changed if we took into account the ' labour release ' of the excepted railwaymen).

Insured workers in employment in 1938 were given above as 13.1 million and the increase in the volume of insured labour in 1941 has been estimated at 1.5 million ' 1938 workers.' The total volume of insured labour in 1941 may thus be estimated at about 14.5 million ' 1938 workers.' It follows that the war sector absorbedin 1941 something like 50 per cent. of the insured labour. This percentage would not be significantly changed if we added to the total volume of insured labour workers excepted from unemployment insurance. It may thus be said that roughly a half of all manual workers (except those in agriculture and domestic service) and lower grade salary earners (below £420 p.a.) were employed in 1941 in the war sector.

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[1] Except that connected with Civil Defence.

M. KALECKI.

B. THE U.S. WAR EFFORT IN TERMS OF MANPOWER

The Bureau of Labor Statistics of the U.S. Department of Labour has made estimates, for various dates, of the number of persons (wage and salary earners) engaged in war production. The present note is an attempt to use these estimates in order to say something about the sources of the war effort, and to make them approximately comparable to the figures calculated for Great Britain by Mr. Kalecki in the preceding article. There are various difficulties in such a comparison, and the figures are in any case significant only to the nearest million of persons employed. It may be argued, however, that calculations in terms of manpower are a sounder basis for comparison between countries than calculations in terms of national income and war expenditure, because comparisons of the latter kind are liable to even greater errors and are of altogether doubtful meaning.

War employment as given by the Bureau of Labor Statistics includes all employees engaged in producing armament and supply (including lease and lend supply except food), defence facilities and war plants, and all employees who are producing the raw materials (except agricultural ones), fuel and power etc. used in war production, as well as a proportion of transport and government employees. It excludes all agricultural employment, domestic servants and self-employed persons. Total industrial employment, as considered here, includes all wage and salary earners with the exception of those engaged in agriculture, domestic servants, casual workers and self-employed persons. The difference between total employment and war employment is ' civilian employment.'

The following figures of war employment were given for the corresponding dates (in millions) :

4th qr. 1940	3rd qr. 1941	4th qr. 1941	Jan.1 1932	April 1 1942	July 1 1942
1.5	3.8	5.3	6.9	9.0	12.5

By a rough method of interpolation the average war employment in 1941 may be estimated at 3.5 millions, and the average war employment in the second quarter of 1942 at 10.5 millions. In 1939 war employment was rather small and may be neglected.

To find how much of the war effort was made possible by a restriction in civilian industry, and how much by an increase in total industry, the change in weekly hours worked must be taken into account. The average hours worked in manufacturing industry increased considerably since 1939 (Table II), but this increase cannot be applied to the total number of employees, as part of them (trade, services, finance, government) experienced little change in hours, and also salaried employees increased their hours probably much less than workers. The index of hours in manufacturing industry is therefore applied to 60% of all employees, and for the rest the hours are assumed to be unchanged. An index of weekly hours for all employees is thus obtained (Table II). The total employment can now be calculated in terms of hours prevailing in 1939. This 'input of labour,' as we may call it, increased in 1941 by 6 million, and in the second quarter of 1942 by 9.5 million above the level of 1939.[1] For the war sector the 'input of labour' is calculated also in terms of 1939 hours; to allow for the much greater increase in hours in this sector the index of weekly hours in durable goods industries is used. It appears then that the input of labour in the war sector (in terms of '1939 workers') was about 4 million in 1941 and about 12.5 million in the second quarter of 1942. The input of labour in the civilian sector is obtained by subtraction (Table I).

TABLE I.

Employment in U.S. Industry.
(millions of persons)

	1939	*1941*	*1942* 2nd qr.
1. Total number of employees (Dpt. of Labour)	29.7	34.4	36.3
2. Employees in the war sector (Dpt. of Labour)	—	3.5	10.5
3. Employees in the civilian sector	29.7	30.9	25.8
4. Equivalent number of total employees at 1939 hours	29.7	35.5	39.2
5. Equivalent of War employment at 1939 hours	—	3.9	12.5
6. Equivalent of Civilian employment at 1939 hours	29.7	31.6	26.7
7. Increase in equivalent number of total employees at 1939 hours as compared with 1939	—	+ 5.8	+ 9.5
8. Change in equivalent of civilian employment at 1939 hours as compared with 1939	—	+ 1.9	— 3.0
9. Ratio of war employment to total employment (line 5 : line 4)	—	11%	32%

TABLE II.

Weekly Hours in Industry.

	1939	*1941*	*1942* *2nd qr.*
Average weekly hours in manufacturing industries (Dpt. of Labour)	37.6	40.5	42.5
Ditto, Index	100	108	113
Index of weekly hours in all industries	100	105	108
Average weekly hours in durable goods industries (Dpt. of Labour)	37.7	42.1	44.9
Ditto, Index	100	112	119

It can now be seen to what extent the increase in total input of labour and the cut in the civilian sector contributed to the input of labour in the war sector. In 1941 the input of 4 million in the war sector was covered entirely by the increase in total input of 6 millions as compared with 1939 (i.e. there remained an additional input of 2 millions in the civilian sector). In the second quarter of 1942, however, of the input of 12.5 million in the war sector, about 9.5 million or 75% were provided by an increase in total input (employment and hours) and about 3 million or 25% by a cut in the civilian sector (compared with the 1939 level).

This cut includes investment for non-war purposes, production of consumers' goods and civilian exports. The proportion to which the cut in the civilian sector and the increase in total input respectively contributed to the input of labour in the war sector may be compared with the corresponding proportion in Great Britain, which can be derived from the figures calculated by Mr. Kalecki. It must be noted, however, that the latter figures refer to the increase in war employment between 1938 and 1941. For this period the increase of input in the war sector in Great Britain was provided to about 20 per cent. by an increase in total input of labour, and to about 80 per cent. by a cut in the civilian sector (private investment, export and consumption). Thus, whereas the greater part of the input in the war sector in the U.S. was provided by an increase in the total volume of labour, and only a smaller part by a cut down in the civilian sector, the situation in Great Britain was the reverse. This is to a large part due to the fact that the degree of utilisation of labour resources (employment and hours) was much lower in pre-war times in the United States than in Britain. It may be expected that the reduction in input in the civilian sector will go still further in the U.S., but it will not easily reach the same proportion as in Britain, just because the pre-war level of consumption and investment was relatively lower in the United States.

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[1] The seasonal variation does not disturb the comparison between the second quarter of 1942 and average yearly figures, because employment in the second quarter of 1942, if adjusted for seasonal variation, does not differ from the unadjusted employment.

A more significant comparison between the two countries is that of the proportion of input of labour in the war sector to input of labour in all industries. Here again the number of weekly hours has to be taken into account because it is higher in the war than in the civilian sector. Average weekly hours worked in durable goods industries were about the same as in manufacturing as a whole in 1939 ; if we assume that the average hours for all employees were also at the same level,[1] the input of labour in terms of 1939 hours, as calculated above, is on a comparable basis in the war sector and total industry. The result is then that the proportion of input in the war sector to that in total industry was about 10% in 1941, and between 30 and 33 per cent. in the second quarter of 1942. These figures are roughly comparable with the proportion of employment in war sector and total industry of about 50% in 1941 calculated for Great Britain by Mr. Kalecki (the British figures of total employment do not include uninsured railway workers, and a part of civil servants, which are both included in the American figures, but this cannot change the proportion significantly). The difference is considerable enough to allow the conclusion that in the second quarter of 1942 the changeover from civilian to war sector in the U.S. was still lagging very much behind the proportion already reached in Britain in 1941. It must, of course, be borne in mind that manpower is only one part, though the most important one, of real resources ; the changeover to war production is also affected by a direct shift of existing equipment (e.g. by conversion of plant, by transfer of ships and other transport facilities to war uses). This shift of existing capital goods from civilian to war sector would have to be considered separately, but obviously the difficulties of calculation are here very great.

It is of some interest to compare also the absolute magnitude of the input of labour in the war sector in the United States and Britain.

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[1] Average hours for all employees in 1939 were probably higher than those of workers in manufacturing industries, but this is within the margin of error allowed for in our results.

In Great Britain, according to Mr. Kalecki, there was in 1941 in the war sector an equivalent of 7½ million employed working at the average hours of 1938. The figure must have increased since, and we may assume for the second quarter of 1942 an equivalent of the order of 8 million working at hours of 1938. To make the war employment in the United States comparable to this figure, it must be reduced to a comparable basis with regard to hours. It will be assumed that the average weekly hours in the war sector in U.S. were the same as in durable goods industry, that is 45 in the second quarter of 1942. Average weekly hours in industry in Great Britain may be assumed to have been about 48 in 1938.[1] The *actual* U.S. war employment of 10.5 million in the second quarter of 1942 can thus be made roughly comparable with the 'equivalent of British war employment at 1938 hours' by reducing the former by about 5%. This gives an equivalent of 10 million employees in the U.S. war sector, as compared with an equivalent of 8 million employees at 1938 hours in the war sector in Great Britain, both figures relating to the second quarter of 1942. The figures are not strictly comparable because the British war employment includes civil defence workers, which are probably of much smaller importance in the United States. This difference, however, will not impair the comparison, as the figures are only significant to the nearest million.

The relative magnitude of the input of labour in the war sector in the two countries does not indicate, of course, the comparative size of the war output, because there are differences in the productivity of labour; the proportion of skilled labour and of female labour and the length of working time are among the factors influencing this productivity. It is likely, however, that productivity of labour in the war sector is not as much different in the two countries as productivity in civilian industries used to be. The above comparison of input of labour shows clearly, therefore, that in the second quarter of 1942 the British war effort was still a major factor in the combined effort; it is likely to be an important proportion of the total also in the near future.[2]

J. STEINDL.

SOME ECONOMIC PROBLEMS OF THE MIDDLE EAST

The chief internal economic problem in the Middle Eastern countries is that of inflation. These countries are dependent on imports both for industrial supplies, and, to a great extent, for clothing and food; and on the export trade for marketing of certain types of home produce. Since none of these countries has an adequate merchant fleet, imports and exports have to be carried in foreign bottoms, i.e. Allied shipping which is already in heavy demand supplying the armies there and in the

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[1] According to the Earnings Enquiry of the Ministry of Labour average weekly hours in 1935 were about 48. The number of weekly hours in 1938 cannot have been so much different as to change the result significantly.

[2] According to announced plans the war employment in U.S. should by the end of 1942 be more than 60% higher than in the second quarter, which would make it more than double the input in British war industry. Recent statements by the War Production Board, however, show that output was behind schedule in August, September and October, and in the latter part of the year a considerable reorganisation seems to be under way, which may slow down the increase in input for some time.

Far East. In so far as they are dependent upon imports this means that a certain inelasticity of supply is to be expected and possibly also a contraction in quantity. Yet the official statements of policy have agreed that one aim of the Allied Powers is to help these countries, neutral or belligerent, to soften the impact of war upon their inhabitants so that imports will not be permitted to fall below the irreducible minimum dictated by need.

Some degree of inflation can, however, be detected in the most important of these countries. In Palestine, for example, the official cost of living index stood at 180 (1939=100) in February 1942, while average earnings over the same period showed no change.[1] Official estimates of the cost of living for some of the other countries are :

Egypt .	Aug. 1939	=100	*Turkey*	1939=100
	July 1942	=180	Nov.	1941=169.3
Iran	March 1937	=100	**Syria and Lebanon*	
	April 1942	=314	(Beirut)	April 1939=100
				April 1942=378
				(controlled prices)

* Given by Economic Institute of the Jewish Agency for Palestine. No official figures.

No estimates are obtainable for Iraq but the local Press is full of complaints of shortages and of high prices, so that it is to be expected that the situation is little better there.

As far as food supplies are concerned it seems, at first, surprising that these should be inadequate. The staple article of diet is wheaten products in all these countries, supplemented by maize and rice. Now before the war for several years these six countries taken together had a considerable export surplus (140,000 tons in 1938) of wheat, and Egypt and Iran both exported rice as well (1937 : Egypt 150,000 tons, Iran 16,000 tons). Even excluding Turkey, the remaining five countries showed a continued export surplus of wheat. The harvest in 1941 was admittedly a bad one throughout the area, but that of 1942 is estimated to be far bigger than that of any pre-war year, so that it should have been possible to meet at least the pre-war level of demand. Demand, however, has been growing steadily, while the supplies actually available for distribution are prevented by several factors from being as large as they could be.

THE INCREASE IN DEMAND.

This is directly attributed by many of the governments concerned to the increase in the number of foreign residents and in particular to the Allied Forces. In Iran, for example, the Press has accused the British Army of occupation of monopolising supplies and driving up prices. The reply here, as in the other countries harbouring Allied troops, has been that the food requirements of the Armies are met very largely by supplies imported from abroad. This is particularly so in the case of wheat, the Middle East Supply Council which arranges imports having even supplemented the local supplies for the civilian consumers in several cases, e.g. Palestine in 1941. But it is impossible to deny that the presence of troops does cause some increase in demand since they compete for civilian supplies while on leave or outside the camps or barracks for other reasons. It is alleged that the Allied Armies are spending £E3,000,000 a month, i.e. £E36,000,000 a year in a country whose national income was estimated by Colin Clark to be very roughly £300,000,000 in 1928 (±50%). This figure probably does not refer to consumer spending by individuals only but also to the military expenditure upon improvement of communications and so on. As far as its effect upon demand goes, this second type of expenditure is likely to be even more expansionary, especially in countries such as these where the Multiplier is probably high. The investment programmes of the military authorities in each country are therefore one of the chief 'inflationary' factors. In Syria and Lebanon, and in Iraq, this influence is strengthened by the ambitious public works programmes undertaken to combat unemployment. In January 1942, irrigation schemes and urban improvements to the value of 50,000,000 francs were put into execution ; an Office of War Economy was set up, with credits to the value of a further 50,000,000 francs, to orientate industrial and agricultural activity towards the needs of war ; and the two collaborated with the Social Department (operating with a subvention of 1,000,000 francs from General de Gaulle) whose function was to find employment for workers and improve working conditions. In Iraq His Majesty's Ambassador, replying to the allegations of the Press, pointed to the 12,000 Iraqis directly employed by the Forces and also stated that the Army suppliers had commissioned the growing of vegetables. The presence of the Allied Forces in all these countries except Turkey is undoubtedly one cause of the increase of employment and therefore of consumers' demand.

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[1] Bulletin of Current Statistics, Jerusalem. Obtained by dividing the index of average daily pay-roll by the index of employment.

Employment in other sectors of these different economies is also increasing, especially in Palestine, Turkey and Egypt where a certain level of industrial activity already existed. In Palestine, military orders placed with local manufacturers rose from £P1 million in 1940 to £P4 million in 1941 and £P8 million in 1942, and this in a country whose total industrial output in 1939 was valued at about £P10 million (the Economist). In 1942 a further rise of a quarter of the total is expected, it being estimated that more than one-half will be taken up by military orders and exports while a further 10% may be accounted for by the individual consumption of soldiers stationed in the country. The estimated increase in physical production since 1940 is about 50%. Palestinian industry is also endeavouring to increase home supplies of consumers' goods previously imported. In Egypt the same process is occurring, for example the Egyptian Sugar Refineries have greatly increased their yield and the export surplus has risen since 1940.

The increases in demand are not only due to increases in numbers employed, but also to the higher level of earnings. Wage-rate increases have been introduced in some sectors, e.g. in Egypt and Syria and Lebanon, the concessionary companies have granted wage increases and they have been suggested to local industrialists. The chief increase in earnings is however on the part of the peasant, who enjoys almost the full benefit of the increasing prices paid for his produce with only a small corresponding increase in costs. Even the cultivator of export crops has improved his position with regard to profit per unit, for although some contractions in total output have been enforced (e.g. cotton by more than 50% in Egypt and citrus in Palestine) the price paid per unit of output has risen. Compare the following prices for Egyptian cotton.

	1941 $ per cantar*	*1942*
Ashmouni	16.25	20
Giza	57.50	25
Cotton-seed	65.00	100

*A cantar is about 100 lb.

One further expansionary factor is Government finance itself. Egypt, Palestine and Iraq claim to have balanced budgets but these statements cannot be taken at face value. In Egypt, for example, the cost of the 1942 cotton crop, which is being bought by the Government, is to be met by drawing upon the Reserve Fund and by floating a loan for £E12,000,000. In the case of Turkey, defence expenditure is omitted from the ordinary budget, which is balanced, and the greater part of this cost is to be met by loans, which will be considerable in amount since the former is estimated at L.T.1,000,000,000 a day in 1942. The new tax upon wealth may help to ' bridge the gap.' In Syria and Lebanon no budget has yet been established by either government, but they appear to be spending considerably in excess of revenue.

These are some of the factors tending to increase internal purchasing power and therefore to raise the level of effective demand.[1] The raising of demand is also the greater because of the very low wage level prevailing in ordinary times. A great increase in the demand for wheat is to be expected, therefore, even on the part of the civilian population, while, when surplus military demand is added, it is no longer surprising that the total exceeds home supplies even at pre-war level or greater.

THE CHANGES IN HOME SUPPLIES.

In spite of the bounteous harvest of 1942 it cannot be supposed that supplies actually becoming available for consumption have shown a great increase. This is due to difficulties at two points : (1) the collecting of the grain from the cultivator, (2) its distribution to the public.

(1) During the last war some 300,000 people died of starvation in the Levant and the memory of this famine plus the speculative motive has resulted in extensive hoarding at each stage of the processes of collection and distribution. The peasant hesitates to surrender the whole of his surplus of grain, the merchant holds grain in the hope of price increases, the retailer does the same and finally the consumer purchases as much as is available to store against shortages. In addition each government itself tends to hoard its country's stocks instead of exporting its surplus to its neighbours. In general, therefore, a large amount of hoarding does occur. To counteract this, five out of the six countries mentioned have introduced requisitioning of surplus produce at fixed prices, but the measures have had only partial success. Even in Syria and Lebanon where the measures are the most stringent, including even the ' designation ' of threshing floors, the Government has obtained control so far of only 50% of the surplus harvest, owing to the non-cooperation of the large landed interest. In Turkey requisitioning measures of the new Government aim at acquiring only 30% of the crop, i.e. about 1.5 million tons, yet the total realised is only 600,000 tons. Dishoarding has been

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[1] This is the cause of the increased note circulation, which is itself only a symptom.

forced in some of these countries by restriction of bank credit, aimed especially against the holding of agricultural commodity stocks.

The tendency to hoarding is reinforced by the possibilities of profitable smuggling, since even the fixed requisitioning prices differ between the countries ; e.g. Syria and Lebanon LS350, Iraq LS250, Palestine LS190, Egypt LS 185.[1] In those countries (Turkey, Egypt, Syria and Lebanon and Palestine) where unrestricted search for hoards is authorised, this is ineffective partly because of insufficiency of staff and partly because of the power of the landed interest. Even where the United Kingdom Commercial Corporation has imported wheat to meet deficiencies of supplies, local shortages are frequently acute, a fact which is in part due to the hoarding and smuggling and in some cases to the deficiencies of internal transport. In Iran, for example, where the number of vehicles available has been lessened by Army requirements to two-thirds of the 1939 level, the residuum is still further contracted in numbers by the lack of tyres and spare parts.

(2) In general, distribution has been left to the price mechanism ; at first prices were allowed to rise without restriction, but, since the poor 1941 harvest, price-fixing of some basic commodities, such as wheat, has been introduced in most of the countries, but with uniform lack of success. Again the chief reason is the lack of a staff adequate to enforce the regulations. ' Black ' markets are general in every commodity for which prices are fixed, the situation being perhaps worst in Syria and Lebanon as is shown by this comment from the local Press in May this year : ' The body known as the Price Regulation Committee has issued a list of fixed prices for foodstuffs. We consider that it would be of no interest whatever to print these prices since they will never be enforced.' In Palestine in 1941 the Government licensed four retail stores in Jerusalem to sell flour and sugar at fixed prices until a fall in prices had been secured, and the same method of combating price increases has been tried in Turkey.

Rationing has been tried in several of these countries but only for specific commodities and with partial success. Sugar is rationed in Palestine by means of cards in the urban centres and in villages by quota, and both sugar and paraffin in Egypt, though with much less success owing to administrative shortcomings. In Syria and Lebanon, the stocks of requisitioned grain are being distributed in a ration of 12 kg. per head per month, under the supervision of the municipal authorities,[2] while a ration of flour, sugar, soap, rice and lentils is issued directly to civil servants. In Iraq the distribution of 13 kg. of wheat per head per month is reported to be successfully in operation in Mosul. Organisation of an attempt at more general rationing was begun in Turkey by the compulsory formation of ' Popular Unions.' These consisted of groups of householders numbering two hundred in each, from which committees of five people were elected to keep members informed of regulations and to distribute ration cards and commodities. These regulations were revoked by the new Turkish government but the Press has since been filled with complaints of severe shortages : bread, for example, ceased to be obtainable after 8 a.m. and has had to be rationed again. In Iran no new system of distribution has been introduced even though local shortages are the cause of political unrest, e.g. rioting in Teheran in December 1942.

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[1] £1 sterling=£P1=£T5.25=£S8.63=£E0.98=1 Iraqui Dinar=129 rials.

[2] Bread coupons have been issued to those not provisioned in this way, to prevent further supplementing of supplies from bakeries.

Other positive measures by the Governments are directed to increasing production; firstly and universally, by the price incentive; and then by measures transferring land and labour from the cultivation of export crops to arable agriculture. In Palestine where both these forces are at work the area under grain has risen from 40,000 acres in 1938—39 to 70,000 acres in 1941—42. But similar influences in Egypt have resulted so far in a curtailment of the cotton crop by about 60% without any corresponding increase of wheat output, the fellahin tending to sow bersim, a fodder crop, instead. A more direct inducement in the form of a wheat subsidy is being tried in 1943. Turkish measures again have been the most comprehensive, though of doubtful effect. To the price incentive and the extension of agricultural credit are added the encouragement of more scientific methods, ploughs and tractors being more highly utilised by the formation of agricultural ' combinats.' There is also a potato subsidy. All the Governments concerned have introduced the adulteration of wheat flour with varying percentages of rice, maize or barley flour, thus increasing bread supplies by anything up to 30%.

It has been thought that the most obvious solution of these difficulties —the introduction of comprehensive rationing—cannot easily be adopted in these not very highly organised communities, the chief handicap, as Egyptian experience shows, being the lack of an administrative staff to carry out such measures. To alleviate the worst cases of civilian hardship, an adequate distribution of grain supplies is the chief necessity in view of the very low standard of living which obtains. In these countries shortages of clothing, or fuel, would not be the occasion of acute distress in the short period. The first need is a common grain policy throughout the area, beginning with a uniform price for requisitioned wheat to discourage smuggling. Secondly, since the grain shortages are most acute in urban areas, the peasant cultivator being protected in general by his private hoard, the problem reduces itself to that of supplying the towns and here the recent Turkish experiment is a possible solution. The 25—28% of the Turkish grain crop to be brought under Government control by requisitioning is estimated at twice the quantity needed adequately to supply the urban centres and the Army; the surplus is then to be used as a buffer pool against speculators in grain. Such measures simultaneously ensure supplies to the towns and discourage hoarding for a rise in prices. To prevent the requisitioned supplies from disappearing into the ' black ' market, they might be sold only through specially constituted Government stores such as were used so effectively in Palestine and Turkey in early 1942 to stabilise prices of essential goods. (Urban populations: Turkey 23.5%, Palestine 29%). Bread prices might be lowered by Government subsidy, yet to ensure equitable distribution within the towns, the rationing of both bread and wheat is necessary, and recent experience in both Syria and Iraq suggests that the administrative difficulties are not insuperable.

Some restriction of demand could also be secured by a contraction of spending by the troops. It is obviously not desirable to reduce capital expenditure by the Allied Powers upon military needs, but suitable arrangements might reduce the purchasing power of soldiers' pay within these countries while leaving the total untouched, e.g. by paying the troops only partly in the legal tender of the country concerned, the remainder being paid partly in canteen money and, partly, English or American money, negotiable only in the home countries. Some reduction of the various Budget deficits would also assist in reducing demand and would be desirable except where such deficits have been incurred in efforts to increase agricultural production. It is difficult to see the economic necessity, for example, of the increase in Government cotton prices in Egypt in 1943.

P. Ady.

DIARY.

The Distribution of Fish

Fish is one of the most difficult of all foods to control, as the Ministry of Food found in the first few days of the war, when its emergency distribution scheme produced shortages almost everywhere, while at the same time enough fish arrived in one area in the Duchess of Atholl's constituency to feed the population for a year. Since this early disaster, the Ministry of Food has proceeded slowly and with caution in every measure which has been introduced, keeping in the closest touch with the Fish Trade Joint Council, the special body formed during the war to represent all sections of the trade. The events of the war have so far compelled the Government to interfere with the trade in two main directions. The fall in supplies (due to enemy interference with fishing grounds and ports, and the requisitioning of 75% of trawlers, mostly the best, by the Admiralty), combined with the strict rationing of all other protein foods, led inevitably to a violent price inflation, which was met in the summer of 1941 by general price control, after the failure of earlier attempts at partial control. More recently the shortage of transport and fuel compelled the Government to introduce, in October 1942, a scheme of 'distribution by zones' which is saving between 6,000 and 7,500 train-miles a week. Under this scheme the six zones (which cover the whole of Great Britain and Northern Ireland) each draw for supplies of fish on certain definite ports. Each port supplies fish within one zone only, with the exception that supplies at any port above the needs of its zone are available for London, subject to Birmingham's right to draw upon the landings at two ports. The scheme has caused an inevitable 'mixing up' of the kinds of fish on sale in different parts of the country, but there seems to be little doubt that its two main objectives of saving transport and distributing supplies more or less proportionately to the population in various districts have been substantially achieved. In the process certain redundant wholesale dealers have been squeezed out.[1] The opposition of a vociferous section of the fish trade to any kind of Government control has been quite exceptional. Lord Woolton was constrained to use, for him, unusually forceful language when introducing the first general price control Order in the summer of 1941. As regards the zoning scheme, the principle was strongly opposed by the trade before its inception, but in face of the set policy of the Ministry to introduce the scheme because of the overwhelming need to save transport, the Fish Trade Council pledged 100% support for the Ministry in its efforts. After only five weeks of this 'full co-operation' the Joint Council passed a resolution stating that the scheme had failed to achieve its objects and had resulted in serious maldistribution with anomalies and injustice abounding, and that 'the distribution machinery of the industry is in danger of irreparable damage.'[1] Lord Woolton thereupon bluntly told the trade that he was not 'prepared to allow this scheme to be sabotaged by anybody.' His strongly worded speech to the trade has not yet, however, had the effect of subduing the opposition to the scheme, which continues in correspondence columns in both national and local press. Unfortunately the opponents of zoning limit themselves to general jeremiads and do not voice in public (or, according to statements from the Ministry of Food, to the Ministry itself), any concrete examples of serious breakdowns in the scheme.

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[1] The extraordinary variety and redundancy of dealers in the peace-time trade are well described in 'The Distribution of Fish' by John Atkins, Fabian Research Tract No. 60, December 1941. The Ministry of Food's zoning scheme corresponds closely to the recommendations made for the wholesale stage by Mr. Atkins.

The very vigour of the discussion about zoning of distribution may, however, serve to obscure the more general problem of distribution of fish to the consumer. Even when the Ministry succeeds in providing each zone with supplies proportional to the requirements of the population (and this is rendered more difficult by the lack of any adequate information about the volume of trade of different fish businesses), the sum of its achievement, apart from the saving of transport, will be to ensure that the tenth person in a queue in Oxford has the same chance of getting fish as the tenth person in a queue in Manchester. The usual 'shortage' phenomena of 'most-favoured customers' are at present only too apparent. Rationing is difficult because landings of fish vary widely from day to day, from week to week and from month to month, while at the same time fish is a commodity which deteriorates rapidly. If a scheme of specific rationing were adopted for fish the difficulty would be to determine the size, or value, of the ration. Even if the rationing period were not one week but a month, actual supplies would differ fairly widely from the *expected* supplies and there would either be a surplus, bringing possible waste, or a deficit which means that queues would still exist, although even this would be a distinct improvement over the present situation. If, however, fish were added to the 'points' foods it would be possible to set a 'point' value per lb. of fish to equilibrate demand with *expected* supplies. Discrepancies between actual and expected supplies could then be balanced out by adjusting in the opposite direction the amounts of canned and smoked fish which can be preserved.[2]

The queue problem would be further reduced by registration of customers with one shop, thus eliminating the shop-to-shop search of people with time to spare.

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[1] Manchester Guardian, 30th November 1942.

[2] If canned and smoked fish supplies are altogether smaller than the discrepancies between actual and expected supplies of fresh fish, the supply of canned meats (a fairly close substitute for fish) in the 'points' scheme can be used as a balancing factor. Exceptionally large windfall surpluses could be sold 'off the ration.'

SCRAP STEEL IN U.S.A

Lack of scrap will probably lead to the curtailment of production by U.S. blast furnaces. Since during winter the collection of scrap is reduced, 7,000,000 tons of scrap should be at the disposal of the steel furnaces on 1st January 1943. For this purpose a quota of 17,000,000 tons of iron and steel scrap deliveries for the six months June-December 1942 was set up. But even July, one of the best months for scrap collection, fell short by 430,000 tons, or 15% of the schedule. At the end of September 15 steel mills had less than a fortnight's stocks. Unless scrap deliveries to the mills have greatly increased during the last weeks of the year, the above quota will not be reached, and steel output will fall off early in the new year.

In October steel output had reached the record of 100% of ' rated capacity ' used, equalling 1,714,000 tons weekly output. However, the ' rated capacity ' deducts 12½% from maximum capacity for repairs, shut downs and other items. Without temporary closing down caused by lack of scrap, capacity might be as high as 103—105% for a considerable time. Up to October steel output had, for lack of raw materials, always remained below ' rated capacity.' Private dealers, who partly owing to their technical knowledge still play a great role in the collection of scrap, found the dismantling and preparing of heavy scrap not remunerative. They claimed that with a price for scrap metal of £15.31 f.o.r. per ton and with costs of collecting heavy scrap near £30, they would lose £15 per ton. The U.S. Government plans, therefore, to subsidise the collection of certain categories of large size scrap—where salvage involves hoisting machinery and acetylene torches—such as abandoned fire escapes, old water tanks, roof girders, etc. The subsidies are to be granted either in cash or by the supply of Works Progress Administration (W.P.A.) labour and materials.

Administrative changes have also been made. The locating and surveying of scrap resources will be entrusted to the Special Project Division of the War Production Board, Conservation Division, while the demolition of structures, the purchase of scrap and transport will be in the hands of War Materials Inc. as financing agency. The success of a new system for the distribution of finished steel will largely depend on sufficient scrap flowing to the steel mills. Otherwise the regional directors of the W.P.B., who have recently been given powers to allocate steel for the completion of urgent war orders, will be faced with the same inflation of the term ' urgent ' which led to the breakdown of earlier priority schemes.

ERRATUM.

BULLETIN Vol. 4 No. 15, p. 293, line 17, read £250 for £187½.

BACK NUMBERS.

The Publishers are willing to buy back numbers of the Bulletin either complete volumes or separate parts. Offers should be sent to the Magazine Department, Basil Blackwell, Broad Street, Oxford.